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One-Year Follow-Up Results From Athersys' Phase I Study of MultiStem in Heart Attack Patients Presented at International Stem Cell Symposium

DATA SUGGEST MULTISTEM PROVIDES LONGER-TERM BENEFIT IN HEART FUNCTION IN HEART ATTACK PATIENTS

CLEVELAND, OH – Athersys, Inc. (Nasdaq:ATHX) announced positive results from the analysis of one-year follow-up data from its Phase I clinical trial of MultiStemR, its allogeneic adult stem cell product, administered to individuals following acute myocardial infarction (AMI), more commonly referred to as a heart attack. Dr. Marc Penn, M.D., Ph.D., co-principal investigator of this study and Director of Cardiovascular Cell Therapy at the Cleveland Clinic, and Director of the Skirball Laboratory for Cardiovascular Cellular Therapeutics, presented the results on June 10, 2011 at the Eighth International Symposium on Stem Cell Therapy and Cardiovascular Innovations in Madrid, Spain. The long-term followup, based on one year of patient data, suggests that trends observed at four months .indicating a benefit in heart function from MultiStem treatment .were continued through twelve months.

Dr. Penn presented new information from the one-year follow-up data collected from patients in the Phase I study, showing benefit in heart function through twelve months in patients treated with MultiStem. Highlights from the new data include:

- The mean left ventricular ejection fraction (LVEF) of the treated patients was substantially higher at twelve months than at baseline, with an increase of 11.3% (4.6 absolute percentage points) from baseline over the twelve-month

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period for all treated patients pooled, compared to 3.2% (1.3 absolute percentage points) for the registry group.

- Treated patients' stroke volume and wall motion, two additional parameters of heart function, were substantially better than baseline at twelve months and also improved from the four-month evaluation. Mean stroke volume and wall motion improved 24.3% and 10.2%, respectively, from baseline over the twelve-month period, while registry patients improved only 7.7% and 5.8% over the period.
- Among those patients with more severe heart attacks (i.e. LVEF < 45%) where twelve-month data were available, the MultiStem treated patients demonstrated a 19.9% improvement in mean LVEF over the period, compared to 6.2% for the registry patients. Treated patients showed a statistically significant improvement in mean stroke volume relative to baseline with a 27.7% improvement ($p < 0.01$), compared to a decline of 8.8% for the registry group. Mean wall motion improved 11.9% for the treatment group, while declining by 0.4% in the registry group.
- Additionally, analysis of data from Holter monitoring in the first month demonstrated a trend for lower incidence of tachycardia in the treated patients compared to the registry patients and no significant difference in arrhythmias between the groups.

"These findings from the twelve-month follow-up analysis are consistent with the results from four months, further demonstrate the potential benefits associated with the biological effects of these stem cells in ischemic tissues, and suggest that this therapy could provide a meaningful improvement in heart function to heart attack patients," said Dr. Penn. "The results support the advancement of the program to the next stage of clinical development."

In his presentation, Dr. Penn also highlighted the initial findings from the Phase I

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clinical trial, which were announced by Athersys in 2010. Based on four months of post-treatment patient data, the findings showed that administration of MultiStem was well tolerated at all dose levels and there were no clinically significant changes in vital signs, allergic reactions or infusion-related toxicities. Each of the trial's three dose groups demonstrated improvement in mean LVEF when compared to baseline, and patients in the MultiStem 50 million cell dose group showed a statistically significant improvement in mean four-month LVEF relative to baseline with a 23.4% improvement ($p < 0.02$).

"We continue to be encouraged by the data from this Phase I study and look forward to advancing this promising clinical program into a Phase II clinical trial to further evaluate MultiStem's ability to improve cardiac function," said William (B.J.) Lehmann, President & COO at Athersys.

The Phase I clinical trial was an open label, multi-center dose escalation trial evaluating the safety of a single administration of allogeneic MultiStem cells following an AMI. Enrolled patients received MultiStem delivered via a catheter into the damaged region of the heart 2-5 days following percutaneous coronary intervention, a standard treatment for heart attack. The study included patients in three treatment cohorts and a registry group where patients received only standard of care. Nineteen treated and six registry subjects participated in the study. To evaluate heart function, echocardiogram data were collected per protocol over twelve months, blinded and evaluated at a central facility.

In 2011, Athersys plans to initiate a Phase II study to evaluate the administration of MultiStem to patients following an AMI. Further guidance about subsequent clinical development will be provided at the time of initiation.

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About MultiStem

MultiStem is a patented and proprietary allogeneic cell therapy product candidate that can be manufactured on a large scale, frozen and stored for an extended period, and subsequently thawed and administered intravenously, similar to traditional biologics.

MultiStem consists of a clinical grade preparation of non-embryonic stem cells obtained from bone marrow that have the potential to produce a range of factors and form multiple cell types. MultiStem appears to work through several mechanisms that promote healing and tissue repair, but a primary mechanism appears to be the production of therapeutic proteins and other molecules produced in response to inflammation and tissue damage. Athersys believes that MultiStem may represent a unique "off-the-shelf" stem cell product based on its apparent ability to be used without tissue matching or immunosuppression and its capacity for large scale production.

About Athersys

Athersys is a clinical stage biopharmaceutical company engaged in the discovery and development of therapeutic product candidates designed to extend and enhance the quality of human life. The Company is developing MultiStem[®], a patented, adult-derived "off-the-shelf" stem cell product platform for multiple disease indications in the cardiovascular, neurological, inflammatory and immune disease area. The Company currently has several clinical stage programs, including for treating damage caused by myocardial infarction, bone marrow transplantation and oncology treatment support, ischemic stroke, and inflammatory bowel disease. The Company also has developed a portfolio of other therapeutic programs, including orally active pharmaceutical product candidates for the treatment of metabolic and central nervous system disorders, utilizing proprietary technologies, including Random Activation of Gene Expression (RAGE[®]). Athersys has forged several key strategic alliances and collaborations with leading pharmaceutical and biotechnology companies, as well as world-renowned research institutions in the United States and Europe to further develop its platform and

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products. Athersys has licensed Oregon Health & Science University's rights in intellectual property co-invented by Dr. Maziarz, which may apply to the use of this cell-based product in this treatment area. The potential individual and institutional conflict of interest has been reviewed and managed by Oregon Health & Science University.

The Athersys, Inc. logo is available at

<http://www.globenewswire.com/newsroom/prs/?pkgid=4548>

More information is available at www.athersys.com.

Forward Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 that involve risks and uncertainties.

These forward-looking statements relate to, among other things, the expected timetable for development of our product candidates, our growth strategy, and our future financial performance, including our operations, economic performance, financial condition, prospects, and other future events. We have attempted to identify forward-looking statements by using such words as "anticipates," "believes," "can," "continue," "could," "estimates," "expects," "intends," "may," "plans," "potential," "should," "will," or other similar expressions. These forward-looking statements are only predictions and are largely based on our current expectations. A number of known and unknown risks, uncertainties, and other factors could affect the accuracy of these statements. Some of the more significant known risks that we face that could cause actual results to differ materially from those implied by forward-looking statements are the risks and uncertainties inherent in the process of discovering, developing, and commercializing products that are safe and effective for use as human therapeutics, such as the uncertainty regarding market acceptance of our product candidates and our ability to generate revenues, including MultiStem for the treatment of inflammatory bowel disease, acute myocardial infarction, stroke and other

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disease indications, and the prevention of graft-versus-host disease. These risks may cause our actual results, levels of activity, performance, or achievements to differ materially from any future results, levels of activity, performance, or achievements expressed or implied by these forward-looking statements. Other important factors to consider in evaluating our forward-looking statements include: final results from the Phase I clinical trial of MultiStem for individuals undergoing allogeneic HSCTs; the possibility of delays in, adverse results of, and excessive costs of the development process; our ability to successfully initiate and complete clinical trials; changes in external market factors; changes in our industry's overall performance; changes in our business strategy; our ability to protect our intellectual property portfolio; our possible inability to realize commercially valuable discoveries in our collaborations with pharmaceutical and other biotechnology companies; our ability to meet milestones under our collaboration agreements; our collaborators' ability to continue to fulfill their obligations under the terms of our collaboration agreements; our possible inability to execute our strategy due to changes in our industry or the economy generally; changes in productivity and reliability of suppliers; and the success of our competitors and the emergence of new competitors. You should not place undue reliance on forward-looking statements contained in this press release, and we undertake no obligation to publicly update forward-looking statements, whether as a result of new information, future events or otherwise.

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